

proportions of polyester and spandex. Although original Claim 3 claims a preferred embodiment as seen in page 3, lines 25-26 of the specification, it is well known to those of ordinary skill in the art that embodiments with proportions closely similar to those of the preferred embodiment will have closely equivalent properties.

Applicant has amended Claim 5 to include embodiments incorporating proportions of bright nylon, semi-bright nylon and bright spandex approximately equivalent to the claimed proportions of polyester and spandex. Although original Claim 5 claims a preferred embodiment as seen in page 3, lines 29-31 of the Specification, it is well known to those of ordinary skill in the art that embodiments with proportions closely similar to those of the preferred embodiment will have closely equivalent properties.

Applicant has further amended Claim 5 to claim the material having a proportion of 80.16% bright spandex. This amendment corrects a typographical error in the original claim 5, which claimed a proportion of 8.16% bright spandex. The amendment is supported by page, line 31 of the specification

The Rejection of Claims 2-5 under Section 112, Second Paragraph

The Examiner has rejected Claims 2-5 under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant has amended Claims 2-5 and respectfully requests reconsideration.

The Examiner rejected Claims 2-5 as being indefinite for containing the trademark/trade name "Lycra". The Examiner notes that the trademark "Lycra" is used to identify spandex. (See Office Action, Paragraph 2.) Spandex is defined as a "manufactured fiber in which the fiber-forming substance is a long chain synthetic polymer comprised of at least 85% of a segmented polyurethane." (See Annex A [www.resil.com/dictionary/s.htm](http://www.resil.com/dictionary/s.htm) from the web site of Resil Chemicals Pvt Ltd, Inc.) In the same dictionary, the term "Lycra" is defined as the trade name for a two-way stretch spandex fiber. (See Annex A.) Applicant respectfully submits that, similar to the Examiner, persons of ordinary skill in the textile and fabric arts would recognize equivalence between the terms "Lycra" and "spandex". Applicant has amended Claims 2-5 to render them more definite by replacing the term "Lycra" with the term "spandex". Applicant respectfully requests reconsideration.

Examiner has rejected Claim 5 as indefinite stating the terms “bright” and “semi-dull” are relative terms which render the claim indefinite. Applicant respectfully traverses this rejection and submits that the terms “bright” and “semi-dull” are definite and well-known to those skilled in the art. Applicant courteously notes that in paragraph 10 of the current Office Action, the Examiner takes Official Notice that the use of bright and dull fibers in fabrics are well known and utilized in the textile arts for the purpose of manufacturing a fabric having a specific surface appearance. Such terms are explicit terminology used to describe a textile property called luster. Luster is a measure of the “brightness or reflectivity of fibers, yarns, carpets or fabrics. Synthetic fibers are produced in various classifications including bright, semi-bright, semi-dull and mid-dull.” (See Annex B: web site [antron.dupont.com/content/resources/carpet\\_glossary/ant06\\_03\\_12.shtml](http://antron.dupont.com/content/resources/carpet_glossary/ant06_03_12.shtml)). Therefore, Applicant respectfully submits that the terms “bright” and “semi-dull” are well known to persons of ordinary skill in the textile arts and requests reconsideration.

#### The § 102 (b) Rejection of Claims 1, 4, and 6-9

Examiner has rejected Claims 1, 4, and 6-9 under 35 U.S.C § 102 (b) as anticipated by United States Patent Number 5,139,476 (Peters). Applicant has amended independent Claim 1 to more particularly define the invention. Applicant respectfully submits that Peters does not anticipate amended Claim 1 and requests reconsideration.

Applicant courteously notes that an object of the invention is to provide a breathable substitute for neoprene based materials. (See Specification page 2, lines 3-4.) A further object is to provide a material which mimics the behavior of neoprene by being stretchable in all directions. (See Specification page 2, lines 7-8.) Applicant respectfully notes that these objectives are met by the compressed open cell foam that comprises the central layer claimed in amended Claim 1. As stated in the specification, “The compressed foam has a high-density which allows it to mimic the four-way stretch behavior and density characteristics of neoprene synthetic rubber.” (See Specification page 3, lines 19-21.)

Peters fails to anticipate the instant application because Peters fails to disclose the use of compressed open cell foam in the central layer of the claimed laminate material.

In this regard, Applicant courteously traverses Examiner's remark that the method limitations of compressing the foam layer are not given patentable weight because the method limitation (compressing the open cell foam) does not structurally change the final product. (See Office Action paragraph 8.) Applicant respectfully notes that amended Claim 1 incorporates the compressed open cell foam as a limitation of a product claim thereby giving the compressed open cell foam patentable weight. Applicant respectfully submits that the use of compressed open cell foam does change the structure by increasing the density of the central layer and thus making the open cell foam more neoprene-like thereby achieving one of the objects of the current invention. Applicant respectfully requests reconsideration of the rejection of amended independent amended Claim 1.

Because Claims 4 and 6-9 depend from Claim 1 and thereby incorporate all the limitations of amended Claim 1, in view of the arguments presented above, Applicant respectfully requests reconsideration of the rejection of Claims 4 and 6-9 as anticipated under § 102 (b) by Peters.

#### The § 103 (a) Rejections of Claims 2, 3, and 5

The Examiner has rejected Claims 2, 3 and 5 under 35 U.S.C § 103 (a) as obvious over United States Patent Number 5,139,476 (Peters). Applicant respectfully traverses this rejection and requests reconsideration.

Applicant notes that Claims 2, 3, and 5 all depend from amended independent Claim 1 and thereby incorporate all the limitations of amended independent Claim 1. To establish a *prima facie* case of obviousness under § 103 (a), the cited reference must disclose all the limitations of the rejected claim. In view of the arguments above and the amendments to the claims, Applicant respectfully submits that Peters fails to disclose the use of compressed open cell foam in the central layer of the material, which compressed open cell foam is necessary to achieve the object of the invention to create a neoprene substitute. Therefore, Applicant respectfully requests reconsideration of the rejection of Claims 2, 3, and 5.

The § 103 (a) Rejection of Claims 10-12.

The Examiner rejected Claims 10-12 under 35 U.S.C. § 103 (a) as obvious over United States Patent Number 5,139,476 (Peters) in view of United States Patent Number 5,900,087 to Chakrabarti et al. (Chakrabarti). Applicant respectfully traverses this rejection and requests reconsideration.

Applicant notes that Claims 10-12 all depend from amended independent Claim 1 and thereby incorporate all the limitations of amended independent Claim 1. To establish a *prima facie* case of obviousness under § 103 (a), the cited reference or references must disclose or suggest all the limitations of the rejected claim. In view of the arguments above, Applicant respectfully submits that the two references, Peters and Chakrabarti, fail to disclose or suggest the use of compressed open cell foam in the central layer of the material, which compressed open cell foam is necessary to achieve the object of the invention to create a neoprene substitute. Therefore, Applicant respectfully requests reconsideration of the rejection of Claims 10-12.

Conclusion

Applicant respectfully submits that all pending claims are now in condition for allowance, which action is courteously requested.

Respectfully submitted,



C. Richard Lohrman  
Registration No. 46,878  
Attorney for Applicant  
Simpson & Simpson, PLLC  
5555 Main Street  
Williamsville, NY 14221  
Telephone: (716) 626-1564  
Facsimile: (716) 626-0366

Dated: July 25, 2002

Version with marked to show changes

Please cancel Claim 7.

Please amend the claims as follows

1. (Amended) A breathable, stretchable, hydrophilic material comprising:  
a porous inner layer of stretchable fabric;  
a porous outer layer of stretchable fabric; and,  
a central layer of open cell foam fixed between said inner and outer layers  
to stretch with said inner and outer layers, wherein said central layer is  
comprised of compressed foam.
2. (Amended) The material according to claim 1, wherein said inner layer includes a  
blend of polyester and spandex [lycra].
3. (Amended) The material according to claim 2, wherein said blend is about 83%  
polyester and about 17% spandex [lycra].
4. (Amended) The material according to claim 1, wherein said outer layer includes a  
blend of nylon and spandex [lycra].
5. (Amended) The material according to claim 4, wherein said blend includes about  
8.99% bright nylon, about 10.85% semi-dull nylon, and about 80.16%  
[8.16%] bright spandex [lycra].
8. (Amended) The material according to claim 1 [7], wherein said central layer of open  
cell foam is compressed at a four-to-one ratio of original thickness to  
compressed thickness.
9. (Amended) The material according to claim 1, wherein said central layer of  
compressed open cell foam is polyurethane foam.

## **ANNEX A**

SOLID COLOUR	fabrics	A fabric or yarn entirely of one colour tone.	A fabric or yarn entirely of one colour tone.
SOLID COLOUR, WORSTED	fibers, filaments, yarns	See under Worsted.	See under Worsted.
SOLID WOVEN BELTING	garments, made-ups, assemblies	See under Belting	See under Belting
SOLUTION-DYEING	processes, operations	See Mass-coloration.	See Mass-coloration.
SOLVENT METHOD	fibers, filaments, yarns	See under Manufacture of man-made fibres.	See under Manufacture of man-made fibres.
SOLVENT-SOLUBLE SOIL	general	The most commonly found impurity in a dry cleaning solvent, e.g. oils and greases.	The most commonly found impurity in a dry cleaning solvent, e.g. oils and greases.
SORPTION	processes, operations	The process of taking up or holding a material by adsorption, absorption, or both.	The process of taking up or holding a material by adsorption, absorption, or both.
SORTING	processes, operations	Process of separating material into different groups of comparable character and quality, determined by some standards	Process of separating material into different groups of comparable character and quality, determined by some standards; same as 'classing', 'grading'.
SOUFFLÉ	fabrics	A French term used for some fabrics with raised or puffed designs, e.g., matelasse.	A French term used for some fabrics with raised or puffed designs, e.g., matelasse.
SOURING	processes, operations	An acid treatment used in bleaching and laundering	An acid treatment used in bleaching and laundering to neutralise excess amount of alkali that might be present.
SOUTACHE	accessories	A narrow braid used as ornamentation on garments	A narrow braid used as ornamentation on garments
SOYBEAN FIBRE	fibers, filaments, yarns	A protein-base, man-made fibre derived from the soybean; resembles wool.	A protein-base, man-made fibre derived from the soybean; resembles wool. Did not achieve commercial success due to its lack of tensile strength, and other weaknesses
SPACE DYED YARN	fibers, filaments, yarns	Yarn dyed in single colour or multicolour spaces	Yarn dyed in single colour or multicolour spaces along a given lineal length of yarn in either repeat type or random type patterns.
SPAN LENGTH	fibers, filaments, yarns	See under Fibre length.	See under Fibre length.
SPANDEX	fibers, filaments, yarns	A manufactured fibre in which the fibre-forming substance is a long chain synthetic polymer comprised of at least 85% of a segmented polyurethane.	A manufactured fibre in which the fibre-forming substance is a long chain synthetic polymer comprised of at least 85% of a segmented polyurethane. These synthetic fibres, apart from their very high elastic recovery compared to any synthetic elastomeric filament, have higher tensile strength, higher modulus, and better resistance to oils, fats, perspiration and other organic materials. See also Elastic Fibre. Spandex may be used by itself (i.e. not covered with other yarns or fibres), covered with one or more yarns of other fibres (i.e. yarns twisted round spandex), or covered with a sheath of other fibres (i.e. core-spun yarns).
SPANISH LACE	fabrics	all lace made in Spain.	The most common Spanish lace is made of silk in flat designs, usually floral, and held together with a mesh, but the term Spanish Lace also refers to all lace made in Spain.
SPANISH STITCH	seams, stitches	A type of embroidery composed of cross-stitches in rows on the right side of the cloth and squares on the wrong side.	A type of embroidery composed of cross-stitches in rows on the right side of the cloth and squares on the wrong side. The cross on the face of the goods may also be enclosed in a square.
SPARTERIE	fabrics	Stiff fabric, used in making hat bases as it can easily be shaped.	Stiff fabric, used in making hat bases as it can easily be shaped.
SPECIAL FINISHES	fabrics	A general term for fabric finishes imparting special properties such as water repellency, crease, stain and flame resistance.	A general term for fabric finishes imparting special properties such as water repellency, crease, stain and flame resistance. See also Functional finishes under Finish.
SPECIAL TRISTIMULUS VALUES		See under Colour measurement.	See under Colour measurement.
SPECIALITY YARNS	fibers, filaments, yarns	Special effects may be produced by using metallic or tinsel yarns, which give a sheen or degree of ornamentation to the fabric.	

COPY OF PAPERS  
ORIGINALLY FILED

RECEIVED  
AUG 07 2002  
IC 1700



LUG	apparatus, equipage, tools	See Bail.	See Bail.
LUGGAGE CLOTH	fabrics	Any fabric employed on luggage.	Any fabric employed on luggage. Includes coated cotton fabrics, man-made fibre fabrics and plastics, in a variety of weights and qualities.
LUMEN	fibers, filaments, yarns	The central longitudinal canal or cavity in vegetable fibres such as cotton.	The central longitudinal canal or cavity in vegetable fibres such as cotton.
LUMINANCE	general	In a coloured object, luminance is a measure of the apparent overall reflectance.	In a coloured object, luminance is a measure of the apparent overall reflectance. For a light source is a measure of the apparent brightness of the light
LUMP	defects, fabrics	Yarn defect. See Slub, Slug.	1. Yarn defect. See Slub, Slug. 2. A length of unfinished cloth, usually longer than the customary piece length.
LUREX	fibers, filaments, yarns	Trade name for a metallic yarn, produced in various colours by coating thin sheets of aluminium on both sides, using a thermoplastic resin.	Trade name for a metallic yarn, produced in various colours by coating thin sheets of aluminium on both sides, using a thermoplastic resin. The yarn is slippery and breaks easily but will not tarnish. It can be incorporated into a variety of woven and knitted fabrics; it is used for embroidering fabrics and it is also made into a sewing thread
LUSTERING	processes, operations	See Lustring.	See Lustring.
LUSTRE	fibers, filaments, yarns, fabrics	A property describing the brilliance of light reflection from the surface of yarn or fabric.	A property describing the brilliance of light reflection from the surface of yarn or fabric.
LUSTRE WOOLS	fibers, filaments, yarns	A group of five major wools (Lincoln, Leicester, Romney Marsh, and Cheviot) which originated in the U.K., but, are now grown all over the world	A group of five major wools (Lincoln, Leicester, Romney Marsh, and Cheviot) which originated in the U.K., but, are now grown all over the world. There are many sub-types, because of cross-breeding. These wools reflect the rays of light, are rugged, harsh, hardy and make ideal yarn for homespun, tweed, cheviot, and Shetland fabrics, coating, and cap cloth of the English type.
LUSTERING	processes, operations	A finishing process which produces lustre on yarns or cloth	A finishing process which produces lustre on yarns or cloth by heat, pressure, steam and friction calendering with or without chemical aids. Also called Lustring
LUXOR	fabrics	A soft, ribbed, heavyweight silk-satin	A soft, ribbed, heavyweight silk-satin or double-faced peau de soie of subdued lustre.
LYCRA	fibers, filaments, yarns	Trade name for a two-way stretch spandex fibre. It has remarkable elasticity and instant recovery	Trade name for a two-way stretch spandex fibre. It has remarkable elasticity and instant recovery. It is very strong and withstands repeated wash and wear. It has a high resistance to abrasion, but its low absorbency enables articles to dry quickly. Fabrics have a neat, flat appearance. The fibre is resistant to perspiration and is not affected by seawater. It is mixed with other fibres, only a small percentage required to provide the necessary stretch, recovery and holding power. Used for foundation garments, tights, sport and exercise wear, swimwear and narrow stretch fabrics.
LYE	apparatus, equipage, tools	An alkaline liquid used for scouring textile material.	An alkaline liquid used for scouring textile material.
LYNX	fibers, filaments, yarns	Silky, soft long fur of this wild cat; colors vary from fawn to grey.	Silky, soft long fur of this wild cat; colors vary from fawn to grey.
LYOCELL	fibers, filaments, yarns	Generic name attributed to the very important and latest fibre, which is of great interest. It is biodegradable and hence, environmental friendly.	Generic name attributed to the very important and latest fibre, which is of great interest. It is biodegradable and hence, environmental friendly. It is an unique, natural, solvent-spun, 100 % cellulose fibre developed in the later half of twentieth century, for apparel and home fashion. Fibre has exceptional strength in wet or dry state. Has the natural absorbency and comfort of cotton and the strength and ease of care of a synthetic - yet it is neither a cotton nor a synthetic. Blends easily with all other fibres. Has the sheen and look of fine

COPY OF PAPERS  
ORIGINALLY FILED

RECEIVED  
AUG 07 2002  
TC 1/00





## ANNEX B

COPY OF PAPERS  
ORIGINALLY FILED

---

**RECEIVED**  
AUG 07 2002  
IC 1700

**Antron®**  
only from DuPont


[» Become a Member](#)    [» Log In](#)

[Antron® Home](#) > [Resources](#) > [Carpet Glossary](#) > L

WHAT'S NEW  
HOW TO  
INNOVATIONS  
FIBER  
SUSTAINABILITY  
FLOORING CATALOG  
RESOURCES

 DuPont Flooring Systems



**Carpet Glossary**

RECEIVED  
AUG 07 2002  
IC 1700

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z

L

COPY OF PAPERS  
ORIGINALLY FILED

## Latex

A water emulsion of synthetic rubber, natural rubber, or other polymer. In carpet, latex is used laminating secondary backings to tufted carpet, backcoating carpet and rugs, and for backcoating carpets and rugs. Almost all carpet latex consists of styrene-butadiene synthetic rubber (SBR) compounded with large quantities of powdered filler.

## Level loop pile

A woven or tufted carpet style having all tufts in a loop form and of substantially the same height.

## Light traffic

Less than 100 traffics per day. Could also include some directional traffic, but no tracked-in dirt (traffic units.")

**Lightfastness** The degree of resistance of dyed textile materials to the color-destroying irradiation by sunlight. Two methods of testing are in use:

1. exposure to sunlight, either direct or under glass; and
2. accelerated laboratory testing in which several types of artificial light sources are used ("Fadeometer.")

## Loop pile

A tufted or woven carpet pile surface where the face yarns are comprised of uncut loops. Loop pile can be level, textured or patterned.

## Luster

Brightness or reflectivity of fibers, yarns, carpets or fabrics. Synthetic fibers are produced in various classifications including bright, semi-bright, semi-dull and mid-dull. The luster of finished carpets can be influenced by yarn heatsetting methods, dyeing and finishing. In high-traffic commercial areas, carpet yarns are often preferred for soil-hiding ability.



The miracle.